

REMARKS

Status of Claims & Summary of Amendments

1. Claims 1 through 21 were originally presented in this application. By Applicants' preliminary amendment of November 1, 2004, claims 1 through 10 and 13 through 21 were cancelled and new claims 22 through 27 were added. Claims 11 and 12 were amended in the same preliminary amendment. In a response to a first Office action on the merits, multi-dependent claim 27 was cancelled and rewritten as five distinct new dependent claims 28, 29, 30, 31, and 32.
2. Claims 11, 12, 22-26 and 28-32 have been examined in the present Office action (mailed by the USPTO on March 6, 2006). An indication of allowability was given to claims 23 and 31. Claims 11, 12, 22, 24-26, 28-30 and 32 were rejected for various reasons as set forth in the Office action.
3. In this paper, allowed claims 23 and 31 have been rewritten in independent form as new claims 33 and 34, respectively. Additional new claims 35 and 36 have also been added. No claims have been canceled in this paper. Claims 11, 25, and 26 have been amended, as described in more detail below, to more particularly point out and distinctly claim the inventive material of the instant invention. Claims 11, 12, 22-24, and 28-32 have also been amended to address various informalities noted by the Examiner. Claims 11, 12, 22-26, and 28-36 remain pending.

Specification/Claim Objections

4. The disclosure was objected to because of various informalities. Paragraphs [0023], [0045], [0051], [0055], [0056], and [0102] have been amended in accordance with the Examiner's suggestions to address these informalities. No new matter has been entered.
5. Claims 11-12, 22-24, and 28-32 were objected to because of various informalities. Claims 11-12, 22-24 and 28-32 have been amended in accordance with the Examiner's suggestions to address the noted informalities. These amendments are ministerial and non-substantive in nature. They are not related to patentability, and are not intended to (and are not believed to) alter the scope and/or subject matter of the amended claims as presented originally. No new matter has been entered.

Double Patenting

6. Claims 11, 12, and 24 stand rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims of 4, 6, and 7 of U.S. Pat. No. 6,813,076 to *Okubo* in view of *Zhang et al.* (*Structural Modification of Polymeric Amorphous Hydrogenated Carbon Films . . .*). Independent claim 11 (from which claims 12 and 24 ultimately depend) has been amended as described in more detail below. Applicant therefore respectfully submits that the double patenting rejection no longer applies. In particular, claims 11, 12, and 24 (in view of the amendments to claim 11) are believed to be patentable over claims 4, 6, and 7 of *Okubo* in view of *Zhang et al.*

Claim Rejections - 35 U.S.C. § 102

7. Claims 11-12, 22, 24-26, 28-30, and 32 stand rejected under 35 USC 102(b) as being anticipated by *Brady et al.* (U.S. Pat. No. 5,294,518). Additionally, claims 11, 12, 22, 24, 26, and 32 stand rejected under 35 USC 102(b) as being anticipated by *Zhang et al.*
8. Applicant respectfully traverses these rejections to the extent that they are pertinent to amended independent claim 11. Independent method claim 11 has been amended to recite the additional step of:

adhering a mask to a top surface of the DLC film, the mask including a transcription of the distributed refractive index structure.

Amended claim 11 also recites:

irradiating the mask and the DLC film, with either a particle beam or an energy beam, such that first selected regions of the DLC film receive said radiation, and second selected regions are blocked by the mask from receiving said radiation, said radiation effective to raise the refractive index of the first selected regions such that the distributed refractive index structure is created within the DLC film.

The amendments to claim 11 are supported by Fig. 10 and Paragraph [0088] of the original specification, such that no new matter is entered and no new search should be required.

9. Applicant respectfully submits that, as amended, independent claim 11 now distinguishes patentably over both *Brady et al.* and *Zhang et al.* In particular, there is nothing in either *Brady et al.* or *Zhang et al.* (or any other prior art reference of record) that teaches, discloses, or even suggests, "adhering a mask to a top surface of the DLC film, the mask including a transcription of the

distributed refractive index structure" and "irradiating the mask in the DLC film, . . . such that first selected regions of the DLC film receive said radiation, and second selected regions are blocked by the mask from receiving said radiation." Accordingly, independent claim 11, as amended, is allowable over the prior art of record.

10. Applicant also respectfully traverses these rejections to the extent that they are pertinent to amended independent claim 25. Independent claim 25 has been amended to recite:

A DLC film characterized by having refractive indices distributed in a pattern oriented within the plane of the film, the pattern including a plurality of alternating first and second linear regions in the plane of the film, the first regions having a first refractive index and the second regions having a second refractive index.

The amendment to claim 25 is supported by Fig. 10 and Paragraph [0090] of the original specification, such that no new matter has been entered and no new search should be required.

11. Applicant respectfully submits that, as amended, independent claim 25 now distinguishes patentably over both *Brady et al.* and *Zhang et al.* In particular, there is nothing in either *Brady et al.* or *Zhang et al.* that teaches, discloses, or even suggests, a DLC film "having refractive indices distributed in a pattern within the plane of the film, the pattern including a plurality of alternating first and second linear regions in the plane of the film, the first regions having a first refractive index and the second regions having a second refractive index." Accordingly, independent claim 25, as amended, is allowable over the prior art of record.
12. Independent claims 11 and 25 being allowable, it follows that dependent claims 12, 22-24, and 28-32 (which depend directly or indirectly from independent claim 11) and claim 26 (which, as amended, depends from independent claim 25) must also be allowable, since these dependent claims carry with them all the elements of the independent claims to which they ultimately refer.
13. As stated above, original claims 23 and 31 have been rewritten in independent form as new claims 33 and 34, respectively. New claim 33 includes each of the elements of previously presented claims 11 and 23 and new claim 34 includes each of the elements of previously presented claims 11, 23, and 34, such that no new matter has been entered and no new search is required. Applicants respectfully submit that new claims 33 and 34 should be allowable, since the Examiner gave an indication of allowability to previously presented claims 23 and 31.

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Reply to Office action of March 6, 2006

14. New dependent claims 35 and 36 have been added. New claim 35 is supported by Paragraph [0090] of the original specification and new claim 36 is supported by Fig. 10 (as well as Paragraph [0090]), such that no new matter is entered and no new search should be required. New claims 35 and 36 both depend from independent claim 25 and therefore should be allowable for the same reasons discussed above in paragraphs 10 and 11, as well as for their additional elements.

Accordingly, Applicant courteously urges that this application is in condition for allowance. Reconsideration and withdrawal of the rejections is requested. Applicants request reconsideration and allowance of pending claims 11, 12, 22, 23, 24, 25, 26, 28, 29, 30, 31, 32, 33, 34, 35, and 36. Favorable action by the Examiner at an early date is solicited.

Respectfully submitted,

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/James Judge/

James W. Judge
Registration No. 42,701

JUDGE & MURAKAMI IP ASSOCIATES
Dojima Building, 7th Floor
6-8 Nishitemma 2-Chome, Kita-ku
Osaka-shi 530-0047
JAPAN

Telephone: **305-938-7119**
Voicemail/Fax: **703-997-4565**